



# UNITED STATES PATENT AND TRADEMARK OFFICE

P/N

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,171	01/28/2004	Gi-Chung Kwon	NEIT-P013.01	3407
27268	7590	07/01/2004	EXAMINER	
BAKER & DANIELS 300 NORTH MERIDIAN STREET SUITE 2700 INDIANAPOLIS, IN 46204-1782			MAYO III, WILLIAM B	
			ART UNIT	PAPER NUMBER
			2831	

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

RDX

<b>Office Action Summary</b>	<b>Application N .</b>	<b>Applicant(s)</b>
	10/766,171	KWON, GI-CHUNG
	<b>Examiner</b>	<b>Art Unit</b>
	William H. Mayo III	2831

-- The MAILING DATE of this communication appears in the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 5-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 5-16 is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. 10/397,627.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. ____ .
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>01/28/04</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: ____ .

**DETAILED ACTION**

***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 10/397,629, filed on March 26, 2003.
2. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 as follows:
3. If applicant desires priority under 35 U.S.C. 120 based upon a previously filed application, specific reference to the earlier filed application must be made in the instant application. For benefit claims under 35 U.S.C. 120, 121 or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of the applications. This should appear as the first sentence of the specification following the title, preferably as a separate paragraph unless it appears in an application data sheet.  
The status of nonprovisional parent application(s) (whether patented or abandoned)  
should also be included. If a parent application has become a patent, the expression  
"now Patent No. \_\_\_\_\_" should follow the filing date of the parent application. If a parent application has become abandoned, the expression "now abandoned" should follow the filing date of the parent application.

If the application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the

application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A priority claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed claim for priority under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

***Information Disclosure Statement***

4. The information disclosure statement filed November 28, 2004 has been submitted for consideration by the Office. It has been placed in the application file and the information referred to therein has been considered.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 5-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Own Admission of Prior Art (herein referred to as AOAPA) in view of Schmitt (Pat Num 4,822,950). AOAPA discloses an known apparatus (Figs 1-4, under Background of the Invention) using plasma for manufacturing a semi-conductor device

(Page 2, paragraph 3-5). Specifically, with respect to claim 5, AOAPA disclose an apparatus (Fig 1) comprising a reaction container (20) where plasma is formed (page 2, paragraph 6), a plasma generation system (40) is connected to the reaction container (20, page 3, paragraph 7), a grounding cable (as shown in Fig 4) for earthing the apparatus (paragraph 14), wherein the grounding cable (80b) has a first grounding wire (86b), a second grounding wire (82b) enclosing the first grounding wire (86b), and an outer insulating covering (84b) surrounding the second grounding wire (82b). With respect to claim 6, AOAPA discloses that second grounding wire (82b) is mesh structure (Fig 4). With respect to claim 7, AOAPA discloses that the first grounding wire (86b) is made of copper (Page 5, paragraph 14). With respect to claim 8, AOAPA discloses that the outer covering (84b) is made of PVC (page 5, paragraph 15). With respect to claim 9, AOAPA discloses that the cross section of the first grounding wire (86b) and the second grounding wire (82b) is rectangular (Fig 4). With respect to claim 10, AOAPA discloses that the cross section of the first grounding wire (86b) and the second grounding wire (82b) may be circular (Page 5, paragraph 15). With respect to claim 14, AOAPA discloses that a substrate (1) is treated with plasma in the reaction container (20, page 3, paragraph 6). With respect to claim 15, AOAPA discloses that a thin film is deposited on the substrate (1, Page 3, paragraph 6). With respect to claim 16, AOAPA discloses that a thin film on the substrate (1) is etched by plasma (page 3, paragraphs 6-8).

However, AOAPA doesn't necessarily disclose the grounding cable having a first outer cover surrounding the first grounding wire and made of insulating material wherein

the second grounding wire surrounds the first outer cover wire and wherein the first and second grounding wires are connected in parallel (claim 5), nor the current through the second grounding wire have higher frequencies the currents through the first grounding wire (claim 11), wherein the currents through the second grounding wire have frequencies of more than 100KHz flow (claim 12), wherein the currents through the first grounding wire have frequencies of less than 100KHz flow (claim 13).

Schmitt teaches grounding cable (Figs 1-2), capable of being utilized in an electrical apparatus, which is relatively light in weight, has high flexibility, enjoys good fatigue resistance, and is free from a tendency to break (Col 1, lines 58-61). With respect to claim 5, Schmitt teaches a cable (10) comprising a first wire (12), a first outer cover (14) surrounding the first wire (12) and made of an insulating material (Col 2, lines 26-30), a second braided wire (16) enclosing the first outer cover (14), and a second outer cover (18) surrounding the second wire (16). With respect to claims 11-12, Schmitt teaches that the second grounding wire (16) is made of nickel-plated fibers (Col 2, lines 30-32), which is capable of operating at frequencies of more than 100KHz (Col 1, lines 43-45). With respect to claims 11 & 13, Schmitt teaches that the first grounding wire (12) is made of copper (Col 2, lines 20-25), which is capable of operating at frequencies of more than 100KHz (Col 1, lines 43-45).

With respect to claims 5 and 11-13, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the apparatus of AOAPA to comprise the grounding wire configuration as taught by Schmitt because Schmitt teaches that such a configuration is relatively light in weight, has high

Art Unit: 2831

flexibility, enjoys good fatigue resistance, and is free from a tendency to break (Col 1, lines 58-61).

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They are Aldissi (Pat Num 5,262,592), Tokarsky (Pat Num 5,475,185), Ono et al (Pat num 6,534,708), Ono et al (Pat Num 6,696,647), Spencer et al (Pat Num 5,519,172), Sato et al (Pat Num 6,417,445), all of which disclose various coaxial cables.

### ***Communication***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Mayo III whose telephone number is (571)-272-1978. The examiner can normally be reached on M-F 8:30am-6:00 pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (571) 272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2831

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

William H. Mayo III  
Primary Examiner  
Art Unit 2831



W.H.M. III  
June 27, 2004